

**What is claimed is:**

1           1.    A transformer comprising:  
2           an iron core;  
3           a first bobbin surrounding the iron core;  
4           a second bobbin surrounding the first bobbin;  
5           a secondary coil wound on the second bobbin;  
6           a primary coil comprising a first coil section and a second  
7                 coil section wound on the first bobbin, wherein the  
8                 coil winding density of the first coil section  
9                 exceeds the second coil section.

1           2.    The transformer as claimed in claim 1, wherein the  
2           secondary coil comprising a third coil section and a fourth coil  
3           section wound on the second bobbin, wherein the coil winding  
4           density of the fourth coil section exceeds the third coil  
5           section.

1           3.    The transformer as claimed in claim 2, wherein the  
2           first coil section is arranged corresponding to the third coil  
3           section.

1           4.    The transformer as claimed in claim 2, wherein the  
2           second coil section is arranged corresponding to the fourth coil  
3           section.

1           5.    The transformer as claimed in claim 1, wherein the  
2           first bobbin has a protrusion separating the first and second  
3           coil sections.

Client's ref.: C03019  
File: 0798-9805usf / tklin / Steve

4           6.    The transformer as claimed in claim 2, wherein the  
5   first bobbin has a protrusion separating the third and fourth  
6   coil sections.